SUMMARY

Prepared by Peg Gardner
On Tuesday, August 16, 2005

Stationary Combustion Sources Workgroup Meeting

Held July 12, 2005
Station Plaza 4, 3rd fl, Conf. Rm 2
22 S. Clinton Ave, Trenton
Meeting called by: Yogesh Doshi
Facilitators: Peg Gardner
Danny Wong

Attendees: Yogesh Doshi, NJDEP BPP; Rudy Maes, ESMI of NJ; James Connolly, Hoffman-LaRoche, Inc; Richard Rao, Terranext; John Zarzycki, NJBPU OCE; Luis A. Comas, Sunoco; Fran Lindsley-Matthews, Chevron; Keith Ocheski, EnviroMet; Anna M. Borillo, NJ Transit; Tom McNevin, NJDEP BAQP; Kim McDonald, Air Force (McGuire Air Force Base); Kelly Moretta, Schering Plough Corp; Scott M. Conklin, Ocean Cty Utilities Authority; Arlene Borowsky, ENSR Int'l; Jon Perry, PSEG; Christine Neely, PSEG; Rich Bankowski, Rutgers University; Gary Helm, Conectiv Energy; Lisa Fleming, Vineland; Ted Gardella, USEPA; Milt Grundlock, Gloucester Cty Utility; Chris McClure, CHA; Manny Vizcaya, Air Engineering; Joe Carpenter, NJDEP DSRT; Melissa Evanego, NJDEP BAQP; Danny Wong, NJDEP BAQP; Peg Gardner, NJDEP BOP
Speaker Phone Participants: John Hoertz, USAF; Kyle Boudreaux, Florida Power & Light
Materials: Copies of day's agenda, PowerPoint Presentation(s) – 2002 Point Source Inventory, Ozone Season NOx Emissions

Introduction/Announcements

All attendees introduced themselves and stated their affiliation i.e., NJDEP, electric generators, non-electric generators, consultants, and other government agencies for the benefit of the new members; prefaced the inventory presentations by explaining the data is in draft form and has yet to be approved by EPA; the group as a whole voiced no objections to listing names and/or affiliations on the Air Workgroup website; report format is undecided.

Overview

Reviewed day's agenda; talked about logistics (next meeting, time, location); presented inventory data, possible control strategies and ozone season NOx emissions followed by Q & A; discussed potential ways to achieve emission reductions (NOx, SO2, VOC, PM2.5)

Discussion

Topic 1: 2002 Point Source Inventory
Discussion: PowerPoint presentation by Melissa Evanego based on emission statements

- 15% of Actual Annual NOx Emissions from Point Sources
- 28% of Actual Ozone Season NOx emissions from Point Sources
  2003 NOx Budget Reductions not reflected
- 66% of Actual Annual SO2 Emissons from Point Sources
- 17% of Actual Annual PM2.5 Emissions from Point Sources
- Fuel Switch from #6 fuel oil, possible control strategy
- PM2.5 "Actual" emissions for 2002 not accurate when compared to 2004 Actual data (bad data?)
- Question to Industry on how a fuel switch would effect efficiency and cost of a unit
- Point source/Area source

Other: compliance testing yielding higher than expected PM-10 emissions; big picture/regional effort – other states

Conclusion: need realistic 2.5 data (no EPA-approved test method); incentive
Action Items/Person(s) responsible/Deadline: Not applicable

Topic 2: Potential Control Strategies
Discussion: PowerPoint presentation by Yogesh Doshi
Simple cycle turbine
- Selective catalytic reduction (SCR), water injection, dry low NOx burner (DLN), SOTA, replacement, aero-derivative (more efficient and SCR possible)

Combined cycle turbine – DLN & SCR
Non-coal large boilers – SCR & wet electric static precipitation (ESP)
Non-coal small boilers – SCR
Other: landfill gas (size?); municipal waste combustion (too few); summertime ozone days; global warming implications (regional greenhouse gas initiative – CO2, model draft)
Conclusion: DLN yields 6 – 8 ppm NOx; SCR results 80 – 90% NOx baseline reduction
Action Items/Person(s) responsible/Deadline: Not applicable

Topic 3: Ozone Season NOx Emissions
Discussion: PowerPoint presentation by Tom McNevin
- Avg Ratios of NOx Emissions on 5 Highest 8-Hour Ozone Days in 2001 to Seasonal Averages
- Avg Daily High-Emitting NJ Peaking Unit Operations on High and Low Temperature Days in 2002 Ozone Season
- August 2002: HEP NOx Emissions and Heat Input vs. Temperature Maxima
- August 2002: Number of HEP Units Operating vs. Temperature Maxima
- NJ EGU NOx Emissions on August 14, 2002 PJM All-Time Electrical Generation Record - By percent / by numbers
- NJ EGU Projected NOx Emissions Post-2007 Using Operation Profile from All-Time Electrical Generation Record of August 14, 2002
- Conectiv NJ HEPU Emission Rates
- NJ EGU Stationary Source vs. Mobile Source NOx Emissions
- Additional slides???

Conclusion: 0.15 lb/MMBtu NOx; 90 high emitting peaking units (HEP); NOx trends – more power, same emissions.
Action Items/Person(s) responsible/Deadline: Not applicable

Topic 4: Open Discussion
Discussion: NY State's definition of boilers (RACT, NSPS)
Water injection (multimedia considerations – availability of water)
Eliminate "peak shaving" from emergency generator definition (NOx generation/NESCAUM Report)
Change demand (production schedules)
NOx reduction
Water injection
Flame temperature
Peakers – water injection (cost, effectiveness, reliability)
Fuel switching – price, availability, feasibility (gas pressure); seasonal; offsets
Biodiesel (shelf life)
Energy efficiency – reduce demand/usage
Sulfur content of fuel – cost
Stack testing – schedule outside ozone season; eliminate off cost (if not firing backup fuel)
Co-fire LFG – credits for existing boilers
Emergency generators with SCR – use as peaking units at industrial sites (byproducts)
Conclusion: Water injection, 30 – 40% reduction of NOx emissions from peaking units (need data regarding costs, reliability); more information required regarding use of biodiesel in stationary combustion sources (SCS); refer to groundrules to keep focus on SCS and goals of workgroup; other States' programs/std. may be useful.
Action Items/Person(s) responsible/Deadline: By 8/9 - Melissa Evanego will research fuel switching; Gary Helm and Jon Perry will present results of water injection on peaking units; Yogesh Doshi will research what other States are doing (rules, definitions, programs); Scott Conklin will report findings about biodiesel.

Topic 5: Logistics
Discussion: Set up next meeting (Aug. 9 or 10); time; place
Conclusion: Next meeting to be held on August 9. Meeting to take place in Trenton at 22 S. Clinton Ave, 3rd floor, conference room 2, from 9 to noon.
Action Items/Person(s) responsible/Deadline: Yogesh Doshi shall set up the August 9 meeting.

Wrap-up: None